

Title (en)

ELECTRO-OPTIC DISPLAYS DISPLAYING IN DARK MODE AND LIGHT MODE, AND RELATED APPARATUS AND METHODS

Title (de)

ELEKTROOPTISCHE ANZEIGEN ZUM ANZEIGEN IM DUNKLEN UND HELLEN MODUS UND VERWANDTE VORRICHTUNGEN UND VERFAHREN

Title (fr)

AFFICHEURS ÉLECTRO-OPTIQUES AFFICHANT EN MODE SOMBRE ET MODE CLAIR ET PROCÉDÉS ET APPAREIL ASSOCIÉS

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Application

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Abstract (en)

[origin: US2016225322A1] This invention provides methods of and related apparatus for driving an electro-optic display having a plurality of pixels to display white text on a black background ("dark mode") while reducing edge artifacts, ghosting and flashy updates. The present invention reduces the accumulation of edge artifacts by applying a special waveform transition to edge regions according to an algorithm along with methods to manage the DC imbalance introduced by the special transition. Edge artifact clearing may be achieved by identifying specific edge pixels to receive a special transition called an inverted top-off pulse ("iTop Pulse") and, since the iTop Pulse is DC imbalanced, to subsequently discharge remnant voltage from the display. This invention further provides methods of and related apparatus for driving an electro-optic display having a plurality of pixels to display white text on a black background ("dark mode") while reducing the appearance of ghosting due to edge artifacts and flashy updates by identifying specific edge pixels to receive a special transition called an inverted Full Pulse transition ("iFull Pulse").

IPC 8 full level

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